



Risk Management: An Overview

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Risk

- Future event
- May or may not occur
- Can include natural or man-made events
- Benefit or detriment
Opportunity or Threat



Risk Management

Risk management is a systematic process that involves:

- Identification
- Analysis
- Planning
- Monitoring



Identification of Risk

“What is the event that could endanger either the safety or security of those traveling and depending upon our roadways?”

- A key step in understanding and managing risk
- Clearly articulate the risk event
- Challenge of identifying unanticipated events
 - disastrous acts of nature
 - terrorists attacks



Risk Components

Likelihood: the possibility that an event may occur, and

Severity: the impact of that event.



Likelihood

- To deal with the uncertainty of the future we need to use both
 - quantitative and
 - qualitative skills
- Using the past to predict the future
- Dealing with threats that are extremely rare



Severity

- Multiple forms of impact
 - Loss of Life
 - Loss of mobility or access to services
 - Loss of funding
 - Loss of Public Support
- Again, may be both qualitative as well as quantitative
- Even if the *likelihood* of the risk event is very small, if there is the potential for extremely severe *impacts*, we need to address these possibilities

Addressing Risks

Reduce or eliminate threats

- **mitigate**
- **avoid**
- **transfer**
- **accept**

Increase opportunities

- **exploit**
- **share**
- **enhance**
- **accept**



Conclusions

**You must plan for risk
...hope is not a plan**